

## PLEXIGLAS® Resist zk50

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### Product Profile:

PLEXIGLAS® Resist zk50 is an amorphous, impact-modified thermoplastic molding compound (PMMA-I).

Typical properties of impact-modified PLEXIGLAS® molding compounds are

- excellent transmission and clarity
- brilliant appearance
- the pleasant feel and sound of the moldings.

PLEXIGLAS® Resist zk50 is characterized by the following special properties:

- maximum break resistance and impact strength
- improved resistance to stress cracking
- certified dishwasher resistance

### Application:

Used for injection molding. Profile extrusion or coextrusion are also possible

### Examples:

lighting fixtures, writing and drawing utensils, domestic appliances and sanitaryware

### Processing:

PLEXIGLAS® Resist zk50 can be processed on machines with 3-zone general purpose screws for engineering thermoplastics.

### Physical Form / Packaging:

PLEXIGLAS® Resist zk molding compounds are supplied as pellets of uniform size, packaged in 25kg polyethylene bags or 500kg boxes with PE lining; other packaging on request.

## Properties:

	Parameter	Unit	Standard	PLEXIGLAS® Resist zk50
<b>Mechanical Properties</b>				
Tensile Modulus	1 mm/min	MPa	ISO 527	950
Yield Stress	50 mm/min	MPa	ISO 527	25
Yield Strain	50 mm/min	%	ISO 527	5
Charpy Impact Strength	23°C	kJ/m <sup>2</sup>	ISO 179/1eU	n.b.
Charpy Notched Impact Strength	23°C	kJ/m <sup>2</sup>	ISO 179/1	13
<b>Thermal Properties</b>				
Vicat Softening Temperature	B / 50	°C	ISO 306	75
Glass Transition Temperature		°C	IEC 10006	115
Temp. of Deflection under Load	0.45 MPa	°C	ISO 75	73
Temp. of Deflection under Load	1.8 MPa	°C	ISO 75	70
Coeff. of Linear Therm. Expansion	0 – 50°C	E-5 /°K	ISO 11359	15
Flammability UL 94	1.6 mm	Class	IEC 707	HB
<b>Rheological Properties</b>				
Melt Volume Rate, MVR	230°C / 3.8kg	cm <sup>3</sup> /10min	ISO 1133	0.1
<b>Optical Properties</b>				
Luminous transmittance	d=3 mm			
Luminous transmittance	D65	%	ISO 13468-2	89
Refractive Index			ISO 489	1.49
<b>Other Properties</b>				
Density		g/cm <sup>3</sup>	ISO 1183	1.12
Humidity Absorption	23°C / 50%	%	ISO 62	0.42
<b>Recommended Processing Conditions</b>				
Predrying Temperature		°C		max. 65
Predrying Time in Desiccant-Type Drier		h		2 – 3
Melt Temperature		°C		230 – 240
Mold Temperature (Injection Molding)		°C		50 – 70

All listed technical data are typical values intended for your guidance. They are given without obligation and do not constitute a materials specification.

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The Business Unit Performance Polymers of Evonik is a worldwide manufacturer of PMMA molding compounds sold under the PLEXIGLAS® trademark on the European, Asian, African and Australian Continent and under the trademark ACRYLITE® in the Americas.

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Ref. No.: MC112-E v0160 Date: 2011-04-04